

Title (en)

CLOSURE UNIT FOR CONTAINERS OF FLOWABLE GOODS

Title (de)

VERSCHLUSSEINHEIT AN GEBINDE FÜR FLIESSFÄHIGES GUT

Title (fr)

UNITE DE FERMETURE DE RECIPIENTS DE MATIERES COULANTES

Publication

EP 0557487 B1 19970129 (DE)

Application

EP 92919022 A 19920911

Priority

- CH 273991 A 19910917
- CH 274091 A 19910917
- CH 9200188 W 19920911

Abstract (en)

[origin: WO9305945A1] A closure unit for storage and handling containers of flowable goods is composed of at least two thermoplastic materials, and its zones made of different materials take up different functions. A base material (A.2) takes up the sealing function against the container (G.2), additional materials (B.2, C) take up for example a supplementary sealing function, or increase mechanical stability, limit permeability, increase elasticity so that an additional opening and closure may be produced and/or make absorption possible. This closure unit is produced by the multimaterial injection moulding process so that the contact surfaces between the various materials are selectively interconnected by a reversible or irreversible interlock, and/or by more or less intensive melting into each other. The closure unit is made of two pieces, i.e. a pouring part (1.2) and a closure part (2.2) or it is made of a single piece. The two-piece closure unit is produced in its closed state in a single operation.

IPC 1-7

B29C 45/16; B65D 41/32

IPC 8 full level

B29C 45/16 (2006.01); **B65D 39/00** (2006.01); **B65D 41/32** (2006.01)

CPC (source: EP KR US)

B29C 45/16 (2013.01 - KR); **B29C 45/1675** (2013.01 - EP US); **B65D 39/00** (2013.01 - EP US); **B65D 39/0058** (2013.01 - EP US);
B65D 41/32 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU NL SE

DOCDB simple family (publication)

WO 9305945 A1 19930401; AT E148389 T1 19970215; AU 2509792 A 19930427; AU 663887 B2 19951026; CA 2095943 A1 19930318;
CA 2095943 C 20010206; DE 59207993 D1 19970313; EP 0557487 A1 19930901; EP 0557487 B1 19970129; ES 2101115 T3 19970701;
KR 100214739 B1 19990802; KR 930702138 A 19930908; MX 9205268 A 19930501; NO 305893 B1 19990816; NO 931769 D0 19930514;
NO 931769 L 19930514; US 5439124 A 19950808

DOCDB simple family (application)

CH 9200188 W 19920911; AT 92919022 T 19920911; AU 2509792 A 19920911; CA 2095943 A 19920911; DE 59207993 T 19920911;
EP 92919022 A 19920911; ES 92919022 T 19920911; KR 930701456 A 19930515; MX 9205268 A 19920915; NO 931769 A 19930514;
US 5041793 A 19930514